WHAT IS CLAIMED IS:

- 1. A picture mapping system comprising:
 - a vehicle adapted to travel on an agricultural field;
- a camera mounted on the vehicle for continuously taking pictures of various portions of the agriculture field;
- a computer mounted on the vehicle for receiving and processing pictures taken by the camera; and

GPS receiver means for receiving information signals transmitted from GPS satellites and/or GPS base stations;

wherein the camera is moved continuously by the vehicle travelling on the field, the pictures taken by the camera are continuously fed into the computer, positional information signals transmitted from GPS satellites and/or GPS base stations are also fed to the computer to determine the positions and the orientations of various pictures taken by the camera, thereby synthesizing together the pictures on the display of the computer to obtain an overall picture representing the entire field.

2. A picture mapping system according to claim 1, wherein the GPS positional information signals are used and pictures taken by the camera are automatically inputted into the computer for each optionally determined distance on the field.

- 3. A picture mapping system according to claim 1, wherein the pictures taken by the camera are synthesized on the display of the computer to obtain a synthesized picture representing the entire field, and any point of the synthesized picture may be locally enlarged by mouse-clicking thereon.
- 4. A picture mapping system according to claim 1, wherein the camera is a video camera or a digital camera, all being able to perform a communication with the computer.
- 5. A picture mapping system according to claim 1, wherein the computer is a personal computer capable of receiving pictures taken by the camera, and processing the pictures in accordance with information signals transmitted from GPS satellites and/or GPS base stations.